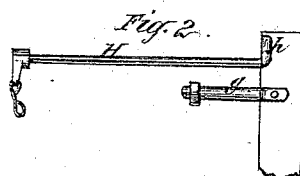
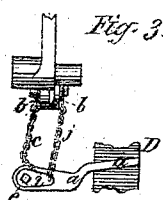
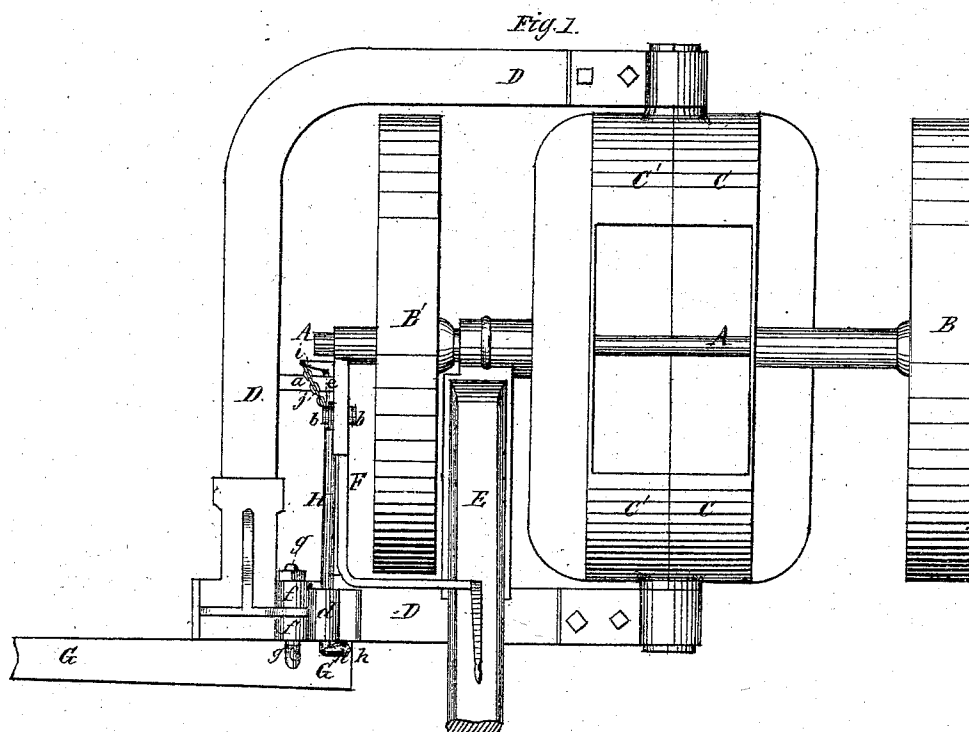


G. W. N. YOST.
Mowing-Machines.

No. 137,817.

Patented April 15, 1873.



Witnesses { *John Mathys.*
John F. C. Prentiss

Inventor:
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UNITED STATES PATENT OFFICE.

GEORGE W. N. YOST, OF CORRY, PENNSYLVANIA, ASSIGNOR TO "ACME
MOWER AND REAPER COMPANY," OF NEW YORK, N. Y.

IMPROVEMENT IN MOWING-MACHINES.

Specification forming part of Letters Patent No. **137,817**, dated April 15, 1873; application filed
September 16, 1872.

CASE B.

To all whom it may concern:

Be it known that I, GEORGE W. N. YOST, of Corry, Pennsylvania, have invented an Improved Finger-Bar Lever for Mowing-Machines, of which the following is a specification:

The accompanying drawing and the following description thereof fully illustrate the invention, and of which drawing—

Figure 1 represents a view of the driving-wheels, inclosing-box, main frame, draft-tongue, and lifting-lever, on the main axle of a mowing-machine, and of a connecting-frame, with a finger-bar hinged thereto, surrounding a driving-wheel and attached to the main frame, and of a finger-bar lever attached to the connecting-frame and lifting-lever, and laid on the finger-bar. Fig. 2 represents a view of the finger-bar and finger-bar lever detached; and Fig. 3 represents a view from behind of the lifting-lever, finger-bar lever, and part of the connecting-frame, detached.

A represents a main axle of a mowing-machine. B represents a left-side driving-wheel on the main axle A. B' represents a right-side driving-wheel on the main axle A. C represents a left-side hollow metal casing-plate loosely on the main axle A, between the driving-wheels B B'. C' represents a right-side hollow metal casing-plate loosely on the main axle A, between the driving-wheels B B'. Uniting the hollow casing-plates C C' with their open sides together, makes at once a main frame and a box to inclose and protect the gear-wheels. D represents a connecting-frame surrounding a driving-wheel, B', and attached to each end of the main frame C C'. E represents a draft-tongue loosely on the main axle A, between the main frame C C' and a driving-wheel, B'. F represents a lifting-lever hinged on the end of the main axle A, on the outer side of a driving-wheel, B'. G represents a finger-bar hinged to the connecting-frame D, on the outer side of a driving-wheel, B'. *a* represents an arm attached to the outer part of the connecting-frame D, and projecting horizontally toward the contiguous driving-wheel B', in a line parallel with the main axle A. *b* represents an arm of the lift-

ing-lever F, projecting downward from the hinge thereof at an angle of less than ninety degrees. *c* represents a chain or links attached to the inner end of the arm *a* of the connecting-frame D, and to the inner side of the arm *b* of the lifting-lever F. By this combination of the lifting-lever F with the main axle A and connecting-frame D, moving the lifting-lever backward and forward over the main axle will raise and lower the outer side of the connecting-frame, and also will raise and lower the inner end of the finger-bar G attached to the connecting-frame. *d* represents a journal-bearing on that part of the connecting-frame D which is next to and parallel with the finger-bar G. *e* represents another journal-bearing in line with the first journal-bearing *d*, and in the horizontal arm *a* of the connecting-frame D. *f* represents another journal-bearing attached to the connecting-frame D, out beyond and alongside of and parallel with the first journal-bearing *d*. *g* represents a journal-arm attached to the finger-bar G near the inner end, at a right angle to the line of the finger-bar and loosely within the outer journal-bearing *f* of the connecting-frame D. This combination of the finger-bar G with the connecting-frame D by the journal-arm *g* and journal-bearing *f* hinges the finger-bar to the connecting-frame, and allows the outer end of the finger-bar to vibrate up and down, and the attachment of the connecting-frame D to the main frame C C', either by hinges or elastic springs, allows the outer part of the connecting-frame and the inner end of the finger-bar G attached thereto to vibrate up and down, and these vibrations of the finger-bar G are independent of each other. H represents a rocking rod, nearly horizontal, and parallel with the draft-tongue E, and loosely in the journal-bearings *d e* of the connecting-frame D. *h* represents a horizontal arm, attached to, or a bent end of, the rocking rod H, at a right angle to the line of the rod, and laid loosely on the top of the inner end of the finger-bar G, beyond the journal-bearing *d* of the connecting-frame D, and between the hinge *g* of the finger-bar and the main frame C C'. *i* represents another arm or bent end of

the rocking rod H, at a right angle to the line of the rocking rod at or near the end opposite to the finger-bar, and at an angle outward and opposed to the inner angle of the first arm *h*. By the combination of the rocking rod H with the finger-bar G by the first arm *h* of the rocking rod and the journal-bearings *d e* of the connecting-frame D, the rocking rod becomes a finger-bar lever. *j* represents another chain or links attached to the second arm *i* of the finger-bar lever H, and to the outer side of the arm *b* of the lifting-lever F, and a little shorter than the first chain *c*. By having the chains *c j* long enough the outer end of the finger-bar H, when in ordinary working position, will fall any distance desired below a horizontal line, and there is nothing to prevent its rising any required distance above such line, so the finger-bar is free to adapt itself to any inclination of the ground. By moving the lifting-lever backward over the main axle A, in raising the outer part of the connecting-frame D, and the inner end of the finger-bar G attached thereto, the second chain *j* will be drawn upward, and will pull the second arm *i* of the finger-bar lever H upward and inward toward the contiguous driving-wheel B', which will

roll or rock the finger-bar lever H inward, which will thrust the first arm *h* of the finger-bar lever downward, and thrust down the inner end of the finger-bar G with it, and thereby throw up the outer end of the finger-bar. Thus the outer end of the finger-bar G, as well as the inner end thereof, can be raised or lowered within the control of the operator by a backward or forward movement of the lifting-lever F.

The following is a summary of the invention:

I claim—

The arrangement of a finger-bar lever, hinged horizontally on the connecting-frame, on the outer side of and rocked at a right angle to the rolling direction of a main driving-wheel, laid on the inner end of the finger-bar, between the finger-bar hinge and the main frame, and worked by a lifting-lever on the outer end of the main axle of a mowing-machine, substantially as described.

G. W. N. YOST.

Witnesses:

CHAS. BIRD,
JAMES DENSMORE.